

## CLAIMS

What is claimed is:

- 1        1.        A heat dissipation device, comprising:  
2                a base having a first base surface;  
3                at least one fin extending from said first base surface;  
4                a spring clip channel defined proximate said at least one fin; and  
5                a load centering mechanism within said spring clip channel, said load centering  
6                mechanism integrally associated with said first base surface.
- 1        2.        The heat dissipation device of claim 1, wherein said load centering  
2                mechanism comprises a pedestal extending from said first base surface.
- 1        3.        The heat dissipation device of claim 1, wherein said spring clip channel  
2                further includes at least one sloped side adapted to orient a spring clip on said load  
3                centering mechanism.
- 1        4.        The heat dissipation device of claim 1, wherein said load centering  
2                mechanism includes at least one sloped side adapted to orient a spring clip thereon.

1           5.     The heat dissipation device of claim 1, further including at least one  
2     depression defined in said base from said first base surface that defines said load  
3     centering mechanism.

1           6.     A microelectronic assembly, comprising:  
2           a microelectronic device; and  
3           a heat dissipation device, including a base having a first base surface and an  
4     opposing second surface, wherein said heat dissipation device makes thermal contact  
5     with said microelectronic device, and including at least one fin extending from said first  
6     base surface, a spring clip channel defined proximate said at least one fin, and a load  
7     centering mechanism within said spring clip channel, said load centering mechanism  
8     integrally associated with said first base surface.

1           7.     The microelectronic assembly of claim 6, wherein said load centering  
2     mechanism of said heat comprises a pedestal extending from said first base surface.

1           8.     The microelectronic assembly of claim 6, wherein said spring clip channel  
2     further includes at least one sloped side adapted to orient a spring clip on said load  
3     centering mechanism.

1           9.     The microelectronic assembly of claim 6, wherein said load centering  
2     mechanism includes at least one sloped side adapted to orient a spring clip thereon.

1           10.     The microelectronic assembly of claim 6, further including at least one  
2     depression defined in said base from said first base surface that defines said load  
3     centering mechanism.

1           11.     A method for fabricating a heat dissipation device, comprising:  
2             forming a base having a first base surface;  
3             forming at least one fin extending from said first base surface;  
4             forming a spring clip channel defined proximate said at least one fin; and  
5             forming a load centering mechanism within said spring clip channel, said load  
6     centering mechanism integrally associated with said first base surface.

1           12.     The method of claim 11, wherein said forming said base, forming said at  
2     least one fin, forming said spring clip channel, and forming said load centering  
3     mechanism occur substantially simultaneously in a molding process.

1           13.     The method of claim 11, wherein forming said load centering mechanism  
2     comprises forming a pedestal extending from said first base surface.

1           14.     The method of claim 11, wherein forming said load centering mechanism  
2     comprises attaching said load centering mechanism to said base first surface within said  
3     spring clip channel.

1           15.     The method of claim 11, wherein forming said base, forming said at least  
2     one fin, and forming said spring clip channel occur substantially simultaneously in a  
3     extrusion process, and forming said load centering mechanism comprises milling away a  
4     portion of said spring clip channel.

1           16.     The method of claim 11, wherein forming said load centering mechanism  
2     comprises forming at least one depression extending into said base from said base first  
3     surface within said spring clip channel.

1           17.     The method of claim 11, wherein forming said spring clip channel further  
2     includes forming at least one sloped side adapted to orient a spring clip on said load  
3     centering mechanism.

1           18.     The method of claim 11, wherein forming said load centering mechanism  
2     further includes forming at least one sloped side adapted to orient a spring clip thereon.

1           19.     A method for fabricating a microelectronic assembly, comprising:  
2             providing a microelectronic device;  
3             providing a heat dissipation device including a base having a first base surface  
4     and an opposing second base surface, at least one fin extending from said first base  
5     surface, a spring clip channel defined proximate said at least one fin, and a load centering

6 mechanism within said spring clip channel, said load centering mechanism integrally  
7 associated with said first base surface;  
8 placing said heat dissipation device second base surface in thermal contact and  
9 microelectronic device; and  
10 placing a spring clip within said spring clip channel.

1 20. The method of claim 19, further including placing said microelectronic  
2 device in a socket, and securing said spring clip to said socket.